



U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**

Bringing you a prosperous future where energy
is clean, abundant, reliable, and affordable

Federal Energy Management Program

FEMP Utility Services

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- ❖ UESC Project Support
- ❖ Agency / Utility Partnerships
- ❖ Renewable Project Support
- ❖ Design Assistance
- ❖ Agency Energy Implementation Plans





UESC Project Support

Education

UESC Workshops

Agency Briefings

Utility Briefings

On-site team training

Communications

Web site

Enabling documents

Case studies





Direct Project Assistance

Project facilitation

Advise & Consult

In depth

Contract development

Technical Proposal review

Performance Verification





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Agency / Utility Partnerships

Federal Utility Partnership Working Group

Strategic Partnering Meeting





Renewable Projects

- ❖ Resource Screening:
 - PV
 - Solar Hot Water
 - Wind
 - Solar Ventilation Preheat
- ❖ Renewable project financing
 - UESC
 - PPA
- ❖ Renewable Communities / Net Zero Energy plan
 - Economic evaluation of resources, what combination of resources will get the site to net zero





Resource Screening: Inputs

- ❖ Site name
- ❖ Address
- ❖ Longitude and latitude
- ❖ Number of occupants
- ❖ Square footage of buildings
- ❖ Utility use and cost for each fuel
- ❖ Renewable resource information
- ❖ Serving utility and rates if not provided by sites



Resource Screening: Inputs

Incentives & Rebates

- ❖ Approximated as either:
 - % reduction in system cost
 - \$/W or \$/m² reduction in system cost
 - \$/kWh production incentive
 - or a combination of the three





Screening Results

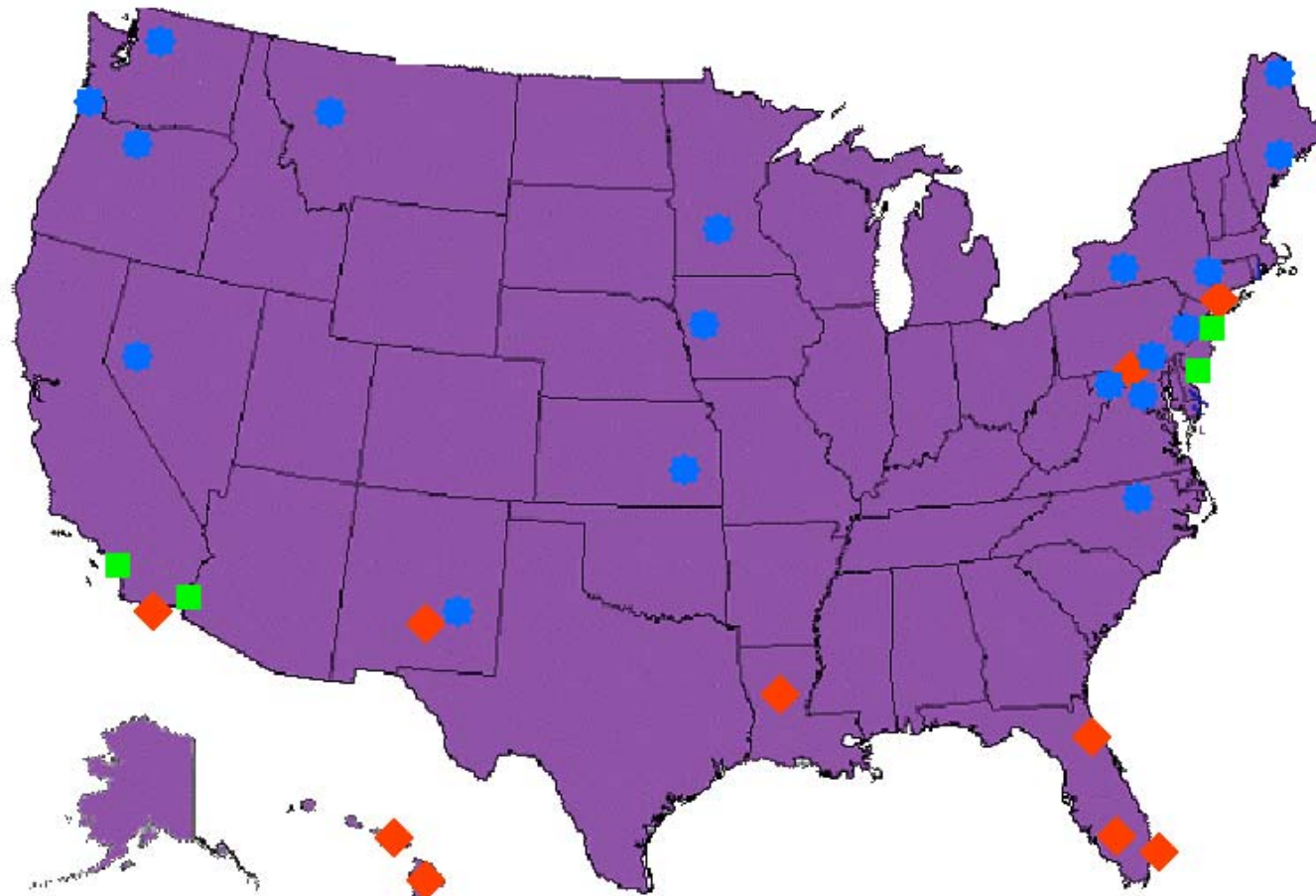
- ❖ System size to match load or area available
- ❖ Cost of system with and without incentives
- ❖ Annual cost savings
- ❖ Savings-to-Investment Ratio
- ❖ Payback Period with and without incentives
- ❖ Maps/visual representations of data

This information is then used to prioritize a list of feasible project site



Summary of Cost Effective Solar Projects

 Solar Water Heating
  Solar Ventilation Air Preheating
  Photovoltaics



Screening shows agency's sites worth considering further



Design Assistance

- ❖ Energy Assessments
- ❖ Feasibility Studies
- ❖ Financing Strategies
- ❖ Technical Specifications
- ❖ Proposal reviews
- ❖ Design review
- ❖ Acceptance testing
- ❖ Procuring low-energy design





Agency Implementation Plans

Implementation plans for achieving goals for energy and water efficiency and renewable energy

- National plan
- Regional plan
- Renewable plan
- Sustainability plan



The End